



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2015-4213; Directorate Identifier 2015-CE-022-AD; Amendment 39-18359; AD 2016-01-01]

RIN 2120-AA64

Airworthiness Directives; Piper Aircraft, Inc. Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for certain Piper Aircraft, Inc. Model PA-46-500TP airplanes. This AD was prompted by a report of the wing upper skin joints being manufactured without sealant, which allows water to enter and stay in sealed, bonded stringers. This AD requires inspecting the upper wing surface for sealant; inspecting the wing stringers for water intrusion; inspecting for deformation and corrosion if evidence of water intrusion exists; and taking corrective actions as necessary. We are issuing this AD to correct the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For service information identified in this AD, contact Piper Aircraft, Inc., Customer Service, 2926 Piper Drive, Vero Beach, Florida 32960; telephone: (877) 879-0275; fax: none; email: customer.service@piper.com; Internet: www.piper.com. You

may view this referenced service information at the FAA, Small Airplane Directorate, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call (816) 329-4148. It is also available on the Internet at <http://www.regulations.gov> by searching for locating Docket No. FAA-2015-4213.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-4213; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The address for the Docket Office (telephone: 800-647-5527) is Document Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Gregory “Keith” Noles, Aerospace Engineer, FAA, Atlanta Aircraft Certification Office, 1701 Columbia Avenue, College Park, Georgia 30337; telephone: (404) 474-5551; fax: (404) 474-5606; email: gregory.noles@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain Piper Aircraft, Inc. Model PA-46-500TP airplanes. The NPRM published in the Federal Register on October 19, 2015 (80 FR 63151). The NPRM was prompted by a report of wing upper skin joints on Piper Aircraft, Inc. Model PA-46-500TP airplanes being manufactured without sealant, which allows water to enter and stay in sealed, bonded stringers. The NPRM proposed to require inspecting the upper wing surface for sealant; inspecting the wing stringers for water intrusion; inspecting for

deformation and corrosion if evidence of water intrusion exists; and taking corrective actions as necessary. We are issuing this AD to correct the unsafe condition on these products.

Related Service Information under 1 CFR part 51

We reviewed Piper Aircraft, Inc. Service Bulletin No. 1262B, dated April 23, 2015. The service bulletin provides instructions for inspecting the upper wing surface for sealant and sealing or resealing (if necessary). This service bulletin also provides instructions for inspecting the wing stringers for water intrusion, and, if water intrusion was found as a result of the inspection, inspecting for corrosion or deformation. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section of this final rule.

Comments

We gave the public the opportunity to participate in developing this AD. We received no comments on the NPRM (80 FR 63151, October 19, 2015) or on the determination of the cost to the public.

Conclusion

We reviewed the relevant data and determined that air safety and the public interest require adopting this AD as proposed except for minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM (80 FR 63151, October 19, 2015) for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM (80 FR 63151, October 19, 2015).

Costs of Compliance

We estimate that this AD affects 440 airplanes of U.S. registry.

We estimate the following costs to comply with this AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspection for sealant	2 work-hours X \$85 per hour = \$170	Not Applicable	\$170	\$74,800

We estimate the following costs to do any additional necessary inspections, rework of the stringers, and installation of sealant that will be required based on the results of the initial inspection. We have no way of determining the number of airplanes that might need this rework of the stringers and installation of sealant:

On-condition costs

Action	Labor cost	Parts cost	Cost per product
Rework stringers and seal skin joints	12 work-hours X \$85 per hour = \$1,020	\$200	\$1,220

According to the manufacturer, some of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage for affected individuals. As a result, we have included all costs in our cost estimate.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA’s authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency’s authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, section 44701: “General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

- 2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

2016-01-01 **Piper Aircraft, Inc.:** Amendment 39-18359; Docket No. FAA-2015-4213; Directorate Identifier 2015-CE-022-AD.

(a) **Effective Date**

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) **Affected ADs**

None.

(c) **Applicability**

This AD applies to Piper Aircraft, Inc. Model PA-46-500TP airplanes, serial numbers 4697001 through 4697528, certificated in any category.

(d) **Subject**

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 5700, Wings.

(e) **Unsafe Condition**

This AD was prompted by a report of wing upper skin joints being manufactured without sealant, which allows water to enter and stay in sealed, bonded stringers. We are issuing this AD to prevent water from entering the stringers common to the upper wing skin. Left uncorrected, corrosion could develop, and freeze/thaw cycles of water at this location could cause deformation of the skin with follow-on disbonding between the stringer flanges and the inner surface of the wing skin. Consequently, the corrosion or disbonding could reduce the structural integrity of the wing.

(f) **Compliance**

Comply with this AD within the compliance times specified, unless already done.

(g) Inspect the Upper Skin Joints for Adequate Sealant

Within the next 100 hours time-in-service (TIS) after [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER] (the effective date of this AD) or 12 months after [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER] (the effective date of this AD), whichever occurs first, inspect the upper skin joints for adequate sealant following Part I of Piper Aircraft, Inc. Service Bulletin No. 1262B, dated April 23, 2015. No further action per this AD is required if adequate sealant is already applied.

(h) Inspect for Evidence of Water Intrusion/Moisture

If you find missing or inadequate sealant during the inspection required by paragraph (g) of this AD, before further flight, inspect for evidence of water intrusion/moisture following Part II of Piper Aircraft, Inc. Service Bulletin No. 1262B, dated April 23, 2015.

(1) If no evidence of water intrusion/moisture is found during the inspection required in paragraph (h) of this AD, before further flight, rework the stringers and apply sealant as required in paragraph (k) of this AD.

(2) If evidence of water intrusion/moisture is found during the inspection required in paragraph (h) of this AD, before further flight, do the actions required in paragraphs (i) and (j) of this AD.

(i) Inspect for Corrosion

If you find, as a result of the inspection required by paragraph (h) of this AD, evidence of water intrusion/moisture, before further flight, inspect for corrosion following Part II of Piper Aircraft, Inc. Service Bulletin No. 1262B, dated April 23, 2015.

(1) If no evidence of corrosion is found during the inspection required in paragraph (i) of this AD, before further flight, rework the stringers and apply sealant as required in paragraph (k) of this AD.

(2) If evidence of corrosion is found during the inspection required in paragraph (i) of this AD, before further flight, obtain and implement an FAA-approved corrective action approved specifically for this AD. At the operator's discretion, assistance may be provided by contacting Piper Aircraft, Inc. at the address identified in paragraph (p)(3) of this AD. After obtaining and implementing an FAA-approved corrective action, approved specifically for this AD, before further flight, rework the stringers and apply sealant as required in paragraph (k) of this AD.

(j) Inspect for Deformation

If you find, as a result of the inspection required by paragraph (h) of this AD, evidence of water intrusion/moisture, before further flight, do a visual inspection for skin or stringer deformation.

(1) If no evidence of deformation is found during the inspection required in paragraph (j) of this AD, before further flight, rework the stringers and apply sealant as required in paragraph (k) of this AD.

(2) If any visible deformation is found during the inspection required in paragraph (j) of this AD, before further flight, obtain and implement an FAA-approved corrective action, approved specifically for this AD. At the operator's discretion, assistance may be provided by contacting Piper Aircraft, Inc. at the address identified in paragraph (p)(3) of this AD. After obtaining and implementing an FAA-approved corrective action, approved specifically for this AD, before further flight, rework the stringers and apply sealant as required in paragraph (k) of this AD.

(k) Rework Stringers and Seal Skin Joints

If any inspection required by paragraphs (g) through (j) of this AD reveals discrepancies (no sealant/inadequate sealant, evidence of water intrusion/moisture, corrosion, or deformation), before further flight, after completing any necessary corrective actions, rework wing stringers and seal skin joints following Part II of Piper Aircraft, Inc. Service Bulletin No. 1262B, dated April 23, 2015.

(l) Credit for Actions Done in Accordance with Previous Service Information

Actions done before [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER] (the effective date of this AD) following Part I and Part II of Piper Aircraft, Inc. Service Bulletin No. 1262, dated October 16, 2013, or Part I and Part II of Piper Aircraft, Inc. Service Bulletin No. 1262A, dated November 14, 2013, as applicable, are considered acceptable for compliance with the corresponding actions specified in paragraphs (g), (h), (i), and (k) (including subparagraphs) of this AD. Additional inspections beyond Service Bulletin No. 1262 are required to fully comply with paragraph (j) of this AD.

(m) Special Flight Permit

(1) In accordance with 14 CFR 39.23, a single flight is allowed to a location to do the actions in paragraph (g) of this AD.

(2) In accordance with 14 CFR 39.23, a single flight is allowed to a location to do the inspections, rework and installation of sealant required in paragraphs (h) through (k) of this AD. Prior to the flight to perform the inspections, rework, and installation of sealant, the following inspection must be performed: If the inspection required by paragraph (g) of this AD reveals no sealant, inspect for evidence of wing damage (skin or stringer deformation, e.g. buckling). Any wing damage that is found must be repaired before further flight and before any special flight permit is authorized.

(n) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Atlanta Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in paragraph (l)(1) of this AD.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office

(o) Related Information

For more information about this AD, contact Gregory “Keith” Noles, Aerospace Engineer, FAA, Atlanta ACO, 1701 Columbia Avenue, College Park, Georgia 30337; telephone: (404) 474-5551; fax: (404) 474-5606; email: gregory.noles@faa.gov.

(p) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Piper Aircraft, Inc. Service Bulletin No. 1262B, dated April 23, 2015.

(ii) Reserved.

(3) For Piper Aircraft, Inc. service information identified in this AD, contact Piper Aircraft, Inc., Customer Service, 2926 Piper Drive, Vero Beach, Florida 32960; telephone: (877) 879-0275; fax: none; email: customer.service@piper.com; Internet: www.piper.com.

(4) You may view this service information at FAA, Small Airplane Directorate, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call (816) 329-4148. It is also available on the Internet at <http://www.regulations.gov> by searching for locating Docket No. FAA-2015-4213.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Kansas City, Missouri, on December 24, 2015.

Pat Mullen,
Acting Manager, Small Airplane Directorate,
Aircraft Certification Service.

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